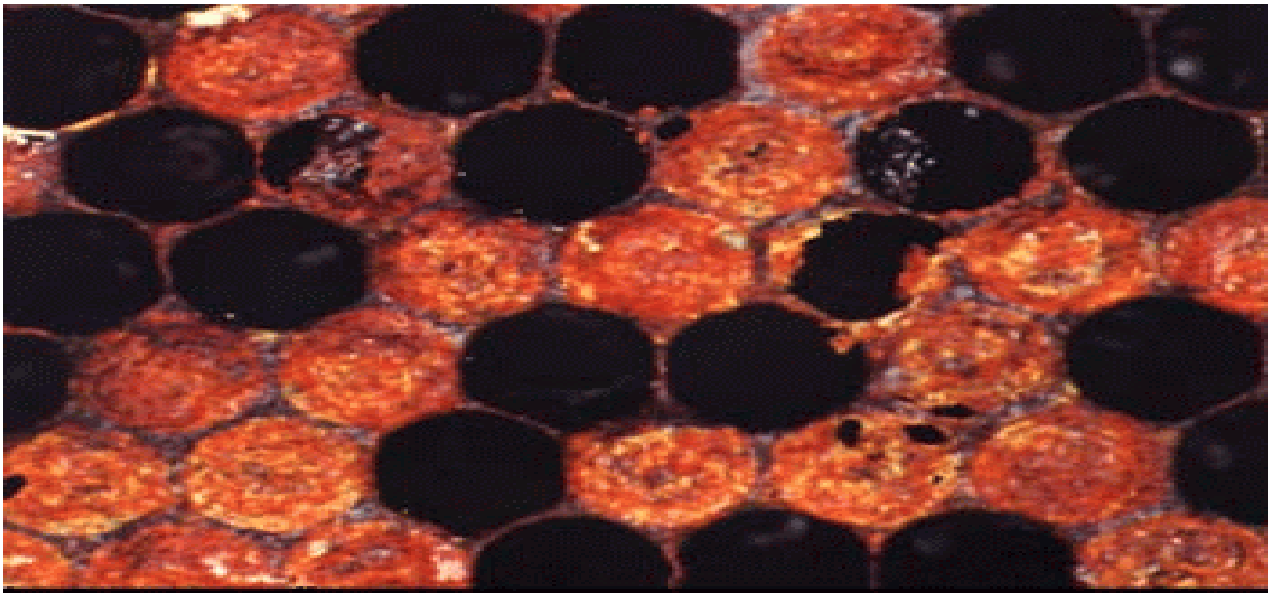

EUROPEAN FOULBROOD DISEASE
OF THE HONEY BEE

Cause: *Melissococcus pluton*, a bacterium.

Effect: European foulbrood is most common in the spring when brood rearing is at its height, though usually the earliest reared brood is not affected. Sometimes the disease appears suddenly and spreads rapidly within infected colonies; at other times it spreads slowly and does little damage. As a rule, it subsides by mid- summer, but occasionally it continues to be active during summer and fall or may reappear in the fall. A good honey flow seems to hasten recovery.

Symptoms: Combs containing larvae infected with European foulbrood usually present a rather uniform appearance because the cells are not sealed. Larvae diseased by European foulbrood move restlessly within their cells and, therefore, when they die, are usually twisted in the cells or die while in the "C" stage at the bottom of the cell. However, some larvae may be stretched out lengthwise from the mouth to the base. In some cases, the larva collapses as though it had been melted, turns yellowish brown, and eventually dries to form a loosely attached brown scale. The consistency of recently dead larvae varies but it is not ropy. The odor of the larval remains also varies. The scale remains of larva dead from European foulbrood disease can be removed readily.

Transmission: The organism becomes mixed with the brood food fed to the young larva by the nurse bees, multiplies rapidly within the gut of the larva, and causes death within 4 days after egg hatch. House bees cleaning out the dead larvae from the cells distribute the organism throughout the hive. Since the honey of infected colonies and the beekeeper's equipment are undoubtedly contaminated, subsequent spread of the disease is accomplished by robber bees, exposure of contaminated honey by the beekeeper, interchange of contaminated equipment among colonies, and perhaps, to some extent, by drifting bees.

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